Islamic Guidance and Counseling Journal
https://journal.iaimnumetrolampung.ac.id/index.php/igcj

Examining Impact of Internal Problems on Academic Procrastination in Adolescents: Emotion Regulation as Mediator

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Article Information:
Received 2024-10-09
Revised 2025-07-18
Published 2025-08-03

Keywords:
academic procrastination, emotion regulation, father involvement, NSSI

Abstract

In current society, academic procrastination has emerged as one of factors contributing to academic failure among youth. They often prioritize leisure activities over fulfilling academic responsibilities. The objective of this study is to examine the role of emotion regulation as a mediator in the relationship between internal problems, including non-suicidal self-injury (NSSI), paternal involvement, and dependent decision-making, on academic procrastination in adolescents in Karawang, West Java, Indonesia. This study used quantitative survey research design involving 148 adolescents who lived in Karawang as participants. The data collection technique was using 4 scales, there are The Self Harm Screening Inventory (SHSI), Brief Version Difficulties in Emotion Regulation Scale (DERS-18), Perception of Father Involvement Scale and General Decision-Making Style Questionnaire (GDMS). Research data analyzes by using JASP 0.19.1, an open-source program for statistical analysis. The results demonstrate that the relationship between NSSI and academic procrastination, father engagement and academic procrastination, and dependent decision making and academic procrastination may all be mediated by emotion regulation. Research finding indicates the potential of emotion regulation to function as a mediator in the relationship between variables and academic procrastination. Specifically, NSSI affects academic procrastination through emotion regulation as a mediator. Similarly, father involvement influences academic procrastination when emotion regulation is considered as a mediator. Lastly, dependent decision-making impacts academic procrastination if emotion regulation serves as a mediator. In conclusion, this research contributed to showed the importance of emotion regulation in explaining the reason behind academic procrastination. Especially for vulnerable youth who have less father involvement or have performed NSSI. They may not perform academic procrastination if they have high emotion regulation.

INTRODUCTION

Procrastination, defined as the deliberate deferral of tasks or activities that are of significant importance (Ghufron & Risnawati, 2016), is a pervasive phenomenon that can manifest in various aspects of life, extending beyond the academic realm. It is characterized by its repetitive nature and intentionality, leading to a state of procrastination that often results in feelings of discomfort. A notable manifestation of procrastination is academic procrastination,

How to cite: Aisha, D., Dimala, C. P., Rahman, P. R. U., Mora, L., & Hakim, A. R. (2025). Examining Impact of Internal Problems on Academic Procrastination in Adolescents: Emotion Regulation as Mediator. *Islamic Guidance and Counseling Journal*, *8*(2). https://doi.org/10.25217/0020258651400
E-ISSN: 2614-1566
Published by: Institut Agama Islam Ma'arif NU (IAIMNU) Metro Lampung

which refers to the delay in completing academic tasks, such as assignments, projects, or exams, often resulting in adverse consequences. Academic procrastination, as defined by Haris (2012), is the act of postponing the completion of essential academic tasks, such as the submission of assignments, the return of borrowed materials, or the engagement in less urgent activities, despite the presence of a deadline or impending examination. This notion is further substantiated by the assertions of Wirajaya et al. (2020), who delineated various manifestations of academic procrastination, including the deferment of tasks or projects, the initiation of writing, and the absence of self-motivation to complete tasks prior to the stipulated deadline. Peerzada and Dar (2019) further elucidate that procrastination functions as a temporal predator, systematically draining individuals of their time and consequently impacting their overall well-being. A review of the extant literature reveals a consistent upward trend in the prevalence of academic procrastination. A study by Suhadinto and Ananta (2022) found that 82.51% of university students in Indonesia exhibited procrastination at the medium to high level. Similarly, Novalyne and Soetjiningsih (2022) found that 53.69% of university students displayed procrastination at a very high or high level. This phenomenon is further substantiated by the research conducted by Anisa et al. (2023), which revealed a substantial prevalence of academic procrastination among university students, with 68.52% exhibiting levels of procrastination that fall within the middle to very high range.

It is imperative to acknowledge that not all students or adolescents engage in academic procrastination behavior; rather a multitude of factors can trigger or cause a teenager to engage in this behavior. Two factors influence the formation of procrastination behavior: internal and external factors. According to Bhatt (2023), the internal factors that may influence academic procrastination behavior include personality factors, the ability to regulate oneself, fear of failure, poor time management, considering the pros and cons, and the process of self-regulation. Meanwhile, the external factors that also influence the emergence of academic procrastination behavior, as indicated by Bhatt (2023), are the influence of friends. In addition, Vandana (2016) posits that parental care, characterized by excessive or inadequate demands, respectively, can influence academic procrastination, thereby serving as a predictor of an increased probability of procrastination behavior.

One internal factor that can influence the emergence of academic procrastination behavior is self-regulation, which includes emotional regulation. This finding aligns with the research conducted by Kim (2018), which indicates that higher levels of self-regulation are associated with reduced procrastination behavior in students. This assertion is further corroborated by the findings of Bytamar et al. (2020), which indicate that individuals with a proclivity for procrastination encounter significant challenges in regulating their emotions. Sinta et al. (2022) concur with the notion that emotional regulation serves as a predictor of academic procrastination. A manifestation of this struggle in adolescence is non-suicidal self-injury (NSSI), defined by the American Psychiatric Association (APA) in the DSM-5-TR as behavior carried out by individuals repeatedly to injure the surface of the body without any intention of committing suicide (APA, 2022). The prevalence of NSSI in adolescents is a salient concern, underscoring the need for comprehensive understanding and intervention strategies. Cipriano et al. (2017) have stated that NSSI is prevalent among adolescents, and Woodley et al. (2020) has asserted that this act of self-harm has emerged as a trend or phenomenon of self-defense mechanisms through physical pain in an effort to cope with psychological or emotional stress. Consequently, there is a postulation that if a teenager is incapable of regulating their emotions, as evidenced by NSSI behavior, it can also lead to an escalation in procrastination. This, in turn, can exert an influence on the psychological well-being of adolescents, thereby perpetuating this cycle.

Parental involvement has been identified as a contributing factor to the onset of academic procrastination in adolescents. According to Vandana (2016), adolescents who perceive parental

involvement, particularly in the context of their education, exhibit a significant association between parental engagement and their children's academic achievements and procrastination patterns. Research has demonstrated that parental involvement plays a substantial role in academic procrastination behavior among adolescents, particularly that of the father. According to Hidayat et al. (2022), the father's role exerts a significant influence on the character strength of adolescents, encompassing knowledge and behavior related to morals. Furthermore, Islamiah et al. (2023) posit that the father's role is associated with an individual's capacity for emotional regulation, a construct that is closely linked to academic procrastination behavior. Consequently, it can be deduced that the father's influence pertains to an individual's emotional regulation and the determination of whether to engage in procrastination or not.

The preceding discussion indicates that the factors influencing academic procrastination behavior may be diverse, including both internal and external factors. Among these factors, self-regulation plays a significant role. Research conducted by Asani (2023) demonstrates that self-control exerts a substantial influence on academic procrastination in students. The presence of inadequate self-control in students is associated with the occurrence of academic procrastination. The repercussions of deficient self-control in adolescents extend beyond academic procrastination, encompassing the potential emergence of additional problems. Research by Chen et al. (2025) underscores the pivotal role of self-control in NSSI behavior, suggesting that diminished self-control in adolescents may amplify the frequency of NSSI. The manifestation of self-control deficiencies in adolescents can give rise to both procrastination and NSSI. However, the direct influence of NSSI on procrastination remains to be elucidated by research. Nonetheless, the relationship between these phenomena can be mediated by emotion regulation, as evidenced by Taherifar et al. (2021). They found a relationship between NSSI and emotion regulation, suggesting that emotion regulation may influence the decision-making process in managing NSSI. Furthermore, Bytamar et al. (2020) have asserted that emotion regulation plays a significant role in procrastination, suggesting that individuals who demonstrate effective emotion regulation may benefit from interventions designed to address academic procrastination.

This study will examine another factor associated with academic procrastination: parental involvement, particularly that of fathers. Parental involvement plays a significant role in children's lives, particularly in their academic development. According to Chia and Hutagalung (2022), parental involvement should be considered a crucial factor due to its substantial impact on children's self-regulation and its long-term implications for their lives. However, extant research on parental involvement has not substantiated the influence of paternal involvement on procrastination. Nonetheless, this relationship can be mediated by emotion regulation. This study is of considerable significance given the impact of academic procrastination on adolescents and its widespread prevalence, which exerts a significant influence on the overall quality of their life and development. The increasing use of gadgets and social media further exacerbates this issue, as adolescents are more likely to prioritize leisure activities over meeting academic demands. The objective of this research is to examine the impact of NSSI, father involvement, and dependent decision making on adolescents who engage in academic procrastination, with emotion regulation serving as a mediator.

METHODS

Design

This research uses a quantitative research design with a descriptive and inferential approach. This research will collect and analyze quantitative data from survey to understand the role of NSSI, father involvement, decision making on academic procrastination with emotion regulation as mediating factor in adolescents in Karawang, Indonesia.

Participants

The population of this research consists of high school and university students who lives in Karawang, West Java, Indonesia. Samples from this population were obtained using convenience sampling, a technique based on convenience. Researchers directly contacted the sampling units and sampling using a quota sampling technique or a technique with samples that match the research quota. This approach was necessitated by the substantial volume of population data, which would have been impractical for researchers to obtain. In this study, researchers used the Lemeshow formula to determine the number of research samples due to the unknown population being. The formula for Lemeshow (Lwanga & Lemeshow, 1991) to decide the number of participants mentioned below:

$$n = \frac{Z^2\ 1 - \alpha/2\ P\ (1-P)}{d^2}$$

According to the aforementioned formula, the number is calculated to be 96.04, or alternatively, it can be rounded up to 100. Based on this calculation, it is determined that the sample size of this research is 148 participants. The demographic data of the samples is provided in Table 1.

Data collection

The data collection technique used in this research is scale. A scale is a technique or method of collecting data indirectly or researchers do not directly ask questions and answers to participants. Usually contains a number of questions that must be answered by participants (Sudaryono, 2019). There are 5 scales used in this research.

Non-Suicidal Self Injury (NSSI) Scale: The Self Harm Screening Inventory (SHSI) is 22 item self-report scale used to assess self-harm behavior or NSSI tendencies among adolescents. This scale develops by Kim et al. (2024). The answer option is yes, and no. Item example of this scale is "Cut my body with sharp objects". The Cronbach's alpha result from this scale was 0.795 and it was good.

Emotion Regulation Scale: Emotion regulation measure by using Brief Version Difficulties in Emotion Regulation Scale (DERS-18) adapted by Victor and Klonsky (2016) from original version of DERS by Gratz and Roemer (2004). This scale consists of 18 items with 5 answers from 1 (almost never) to 5 (almost always). Item example of this scale is "I pay attention to how I feel". The content validity from this scale by overall score ranged from 0.53 to 0.75 and it means all items valid. The Cronbach's alpha result was 0.89 and it means having good reliability score.

Father Involvement Scale: Father Presences Questionnaire consists of 10 scales. One of the scales is Perception of Father Involvement Scale, which consists of 13 items. This scale is developed by Krampe and Newton (2006). Each item followed by 5 responses. There are never, seldom, occasionally, frequently and always. Item example of this scale is "My father told me that he loved me". Include the validity and reliability test results. This scale has Cronbach's alpha result was 0.94 and it means has good reliability.

Decision Making Scale: This research uses General Decision-Making Style Questionnaire (GDMS) by Scott and Bruce (1995) in (Crespo, 2019) This research only used items that measure dependent style of decision making. It consists of 5 items with 5 responses based on Likert. The Cronbach alpha's result for rational decision-making styles was 0.721, for intuitive decision-making style was 0.786, dependent decision-making style was 0.841 and avoidant decision-making styles was 0.793. Overall, all decision-making styles have good reliability.

Academic Procrastination: This research uses Indonesian Adaptation of Academic Procrastination – Short Form (APS-S) from Rasyid et al. (2023). It consists of 5 items with sample of item is "I put off projects until the last minute". Include the validity and reliability

test results. The Cronbach alpha's result was 0.86 and corrected item total correlation values ranged 0.64 to 0.72.

Data analysis

This research uses quantitative research methods using JASP 0.19.1 with multiple regression, used to test the simultaneous influence of several independent variables on the dependent variable. To show significance level (alpha), at 0.05, when the p-value is less than 0.05 then it was considered statistically significant. Then path analysis to extend multiple regression to test models involving direct and indirect paths between variables and also create a path diagram to visualize the relationship between these variables. And mediation analysis, used to test whether the influence of the independent variable on the dependent variable is mediated by the mediator variable.

Table 1. Demographic Data of Participants

Variable	N (%)
Age	
16 – 18	20 (13,5)
19 – 21	116 (78,4)
21 above	12 (8,1)
Gender	
Male	26 (18)
Female	122 (82)
Education	
High School	28 (19)
University	120 (81)
NSSI Frequencies	
Never	44 (29.7)
Ever	104 (70.2)
Procrastination Frequencies	
High	16 (10.8)
Medium	65 (43.9)
Low	67 (45.2)
Emotion Regulation Frequencies	
High	47 (31.7)
Medium	88 (59.4)
Low	13 (8.7)
Father Involvement Frequencies	
High	59 (39.8)
Medium	49 (33.1)
Low	40 (27.0)
Dependent Decision-Making Frequencies	
High	84 (56.7)
Medium	61 (41.2)
Low	3 (2.0)

The data in table 1 also shows the procrastination data of adolescents as participants in this study. The categorization in this study is divided into 3 categories, namely high, medium, and low. In Table 3 also, it can be seen that the distribution of participants in this study shows that adolescents who have a high level of procrastination of 7.4% (16 persons), a moderate level of 30% (65 people), and a low level of 31% (67 persons). It can be concluded that adolescents in this study mostly have low and moderate levels of academic procrastination. The distribution of adolescents' emotional regulation abilities in this study is shown, namely 22% (47 persons) have a high level of emotional regulation abilities. 41% (88 persons) adolescents have a moderate level of emotional regulation abilities. And 6% (13 people) have a low level of

emotional regulation abilities. It can be concluded that the emotional regulation abilities of adolescents in this study are mostly in the moderate category.

The distribution of adolescent perceptions regarding father involvement is also demonstrated. Forty percent (59 respondents) expressed a high level of father involvement, 33 percent (49 respondents) indicated a moderate level of involvement, and 27 percent (40 respondents) reported a low level of involvement. This suggests that a significant proportion of the adolescent sample in this study perceive a high degree of father involvement. The distribution of adolescents related to dependent decision making is also demonstrated. 57% (84 individuals) exhibited a high level of dependent decision making, 41% (61 individuals) demonstrated a moderate level, and 2% (3 individuals) displayed a low level. These findings suggest that adolescents in this study predominantly exhibit high levels of dependent decision making. The distribution of NSSI behavior tendencies among the adolescents in this study is illustrated in Table 4. The data indicates that 70% (104 individuals) have either contemplated or perpetrated self-harm or NSSI, while 30% (44 individuals) have not engaged in such behaviors. This suggests that the adolescents in this study are the most likely to have engaged in NSSI, either through contemplation or action.

RESULTS AND DISCUSSION

Results

Data collected for academic procrastination, NSSI, father involvement, dependent decision making and emotion regulation are using scales from various sources. Gathered data tabulated to examine descriptive and inferential statistics using JASP software. This research used 2 types of analysis. There are descriptive analysis and inferential analysis. The analysis of descriptive statistics shown in Table 2. It shows descriptive statistics of procrastination, emotion regulation, dependent decision making, NSSI, and father involvement. categorization tests for each variable are explained. It shows how the distribution of participants and to describe the participant data in this study.

Table 2. Descriptive Statistics (n = 148)

Variable	M	SD	Median	Min	Max	Range	Variance	P33	P67
Emotion Regulation	59.18	12.74	61.00	19.0	88.0	69.00	162.30	54.00	66.00
Decision Making	18.91	3.23	19.00	9.0	25.0	16.00	10.44	18.00	21.00
Procrastination	12.32	4.81	12.00	5.0	25.0	20.00	23.15	10.00	14.00
NSSI	0.70	0.46	1.00	0.0	1.0	1.00	0.21	1.00	1.00
Father Involvement	40.16	13.75	42.00	13.0	63.0	50.00	189.18	33.00	50.00

Note. M = Mean; SD = Standard Deviation; P33 = 33.33rd percentile; P67 = 66.67th percentile.

In addition to conducting a descriptive analysis, researchers also conducted an inferential analysis by conducting regression tests and hypothesis tests. This study has eight hypotheses. The first hypothesis is that there is an influence of NSSI behavior on academic procrastination behavior. From the results of the regression test, it was found that the R value was 0.207, and the R2 (R Square) value is 0.043. This suggests that NSSI contributes 0.4% to academic procrastination. The results of the analysis indicate a significant influence of NSSI on academic procrastination in adolescents in Karawang, as evidenced by an F value of 0.011 and a p value of 0. 011.The second hypothesis focuses on the influence of father involvement on academic procrastination. The regression test for this hypothesis yielded an R result of 0.066 and an R2 (R Square) value of 0.004, indicating a contribution of 0.4% to procrastination. However, the ANOVA table indicated a significant value of 0.429, suggesting that there is no influence between father involvement and academic procrastination.

The third hypothesis posits the influence of dependent decision making on academic procrastination. The regression test results indicate an R value of 0.022 for this hypothesis,

along with an R2 (R Square) value of 0.000, suggesting that dependent decision making does not contribute to academic procrastination. The hypothesis test also shows a p value of 0.790, indicating that there is no influence of dependent decision making on academic procrastation. The fourth hypothesis is that there is an influence of emotional regulation on academic procrastation. The regression analysis yielded an R value of 0.283 and an R2 (R Square) value of 0.080, indicating that the contribution of emotional regulation to academic procrastination is 0.8%. The study's findings support the hypothesis with a significance value of less than 0.001, suggesting a robust influence of emotional regulation on academic procrastination.

The fifth hypothesis is that there is an influence of NSSI, father involvement, dependent decision making and emotional regulation on academic procrastination. From the results of the regression test, the R value is 0.322 and the R2 (R Square) value is 0.104, which means that the contribution of these four variables is 10.4% to academic procrastination. From the results of the ANOVA test, the p value is 0.003, which can be interpreted that the hypothesis is accepted, namely that there is an influence of NSSI, father involvement, dependent decision making and emotional regulation on academic procrastination. The sixth hypothesis is that emotional regulation acts as a mediator of NSSI and academic procrastination. The direct effect between NSSI and academic procrastination shows a significant result of p = 0.219, which means that there is no direct effect of NSSI on academic procrastination. However, if emotional regulation becomes a mediator, then the significance value is p = 0.009. This significant result indicates that Ha is accepted, which means that emotional regulation acts as a mediator of NSSI and academic procrastination.

The seventh hypothesis posits that emotional regulation functions as a mediator of father involvement and academic procrastination, a notion that was confirmed by the results of the mediation analysis, which yielded a significance value of p = 0.019. This finding suggests that Ha is valid, thereby indicating that emotional regulation serves as a mediator of father involvement and academic procrastination. The eighth hypothesis asserts that emotional regulation acts as a mediator of dependent decision making and academic procrastination. The results of the mediation analysis show that the significance value is p = 0.005, thereby indicating that Ha is accepted, namely that emotional regulation acts as a mediator of dependent decision making and academic procrastination. The results of the path coefficient test demonstrate the influence of NSSI on emotional regulation ($p < 0.001$), the influence of father involvement on emotional regulation ($p < 0.001$), and the influence of dependent decision making on emotional regulation ($p < 0.001$).

The results of this analysis may be seen in Table 3. It can be concluded that overall, emotional regulation acts as a mediator of NSSI on academic procrastination, father involvement on academic procrastination and dependent decision making on academic procrastination.

Table 3. Standardized Indirect Effects on Procrastination via Emotion Regulation (N = 148)

Predictor	Mediator	Outcome	Estimate	SE	z	p	95% CI (Lower, Upper)
NSSI	ER	PROC	1.025	0.392	2.616	.009	[0.257, 1.793]
FI	ER	PROC	-0.025	0.011	-2.339	.019	[-0.046, -0.004]
DM-D	ER	PROC	0.190	0.068	2.806	.005	[0.057, 0.322]

Note. NSSI = Non-Suicidal Self-Injury, FI = Father Involvement, DM-D = Decision Making – Dependent, ER = Emotion Regulation, PROC = Procrastination, SE = Standard Error, CI = Confidence Interval.

Discussion

Academic procrastination is a critical issue that warrants particular attention from both educators and parents, given its potential to hinder adolescents' academic performance and overall development. The impact of academic procrastination, not only in the context of

education, but can also affect work attitudes and interpersonal relationships. According to the research conducted by Ahmed, Bernhardt, and Shivappa (2023), academic procrastination has been demonstrated to have a negative impact on students' mental well-being, as it can lead to feelings of low self-esteem, stress, and guilt. This phenomenon has also been found to be associated with diminished academic performance in students (Munda et al., 2024). Specifically, the study by Munda, Thangavel, and Tiwari (2024) indicated a correlation between academic procrastination and mental health concerns. Their findings suggest that students who engage in significant levels of academic procrastination may experience anxiety, stress, and a range of mental health challenges.

According to Kurniawan (2024), there are several factors that influence academic procrastination, both internally and externally. From the internal side, self-control is thought to be one of the influencing factors. Self-harm behavior or NSSI is thought to be a form of adolescents' inability to control themselves. The results of the analysis showed that there was an influence of NSSI on academic procrastination, which means that if adolescents have a high tendency to carry out NSSI actions, then they will tend to carry out high academic procrastination as well. However, the results showed a small influence of NSSI on academic procrastination. However, if mediated by emotional regulation, then emotional regulation acts as a mediator of NSSI on academic procrastination. It is hoped that by being mediated by emotional regulation, the magnitude of the influence will be greater. The findings of the significance test demonstrate a direct impact of NSSI on emotional regulation, and a reciprocal impact of emotional regulation on procrastination, aligning with the observations made by Bytamar et al. (2020). They contend that emotional regulation difficulties play a pivotal role in the development of academic procrastination. This assertion is further corroborated by Sinta et al. (2022), who observed a negative correlation between emotional regulation and academic procrastination, implying that enhanced emotional regulation is associated with reduced academic procrastination. The relationship between NSSI and emotional regulation is also noteworthy, as Taherifar et al. (2021) noted that the inability of adolescents to regulate emotions can serve as a predictor of NSSI behavior. In accordance with the assertions put forth by Lan et al. (2022), this statement is endorsed by the demonstration of a substantial correlation between emotional regulation and NSSI behavior. The present research findings indicate that emotional regulation exerts a considerable influence on NSSI behavior.

A second factor that has been demonstrated to contribute to the development of academic procrastination is parental involvement, particularly that of the father. The findings of the analysis demonstrate that there is no direct impact of father involvement on academic procrastination. However, there is an effect of father involvement on emotional regulation, and there is also an effect of emotional regulation on procrastination. The results of the mediation analysis further indicate that emotional regulation can act as a mediator of father involvement on academic procrastination. This finding aligns with the assertions put forth by Islamiah et al. (2023), who contend that paternal influence can be associated with adolescents' emotional regulation capabilities. This notion is further corroborated by Vandana (2016), who posits that parental support, notably from fathers, plays a pivotal role in academic procrastination. This assertion is further substantiated by the findings of Wei et al. (2019), who contend that parenting patterns significantly contribute to the development of procrastination behavior. Additionally, Yusof et al. (2023) emphasize the crucial role of father involvement in the lives of adolescents, particularly in terms of their social, emotional, and academic well-being.

Another factor that has been demonstrated to influence academic procrastination is dependent decision making. The results of the analysis demonstrated that there was no significant influence of dependent decision making on academic procrastination. However, the results also showed that emotional regulation can act as a mediator of the influence of dependent decision making on academic procrastination. Furthermore, it appears that there is a significant

influence of dependent decision making on academic procrastination. This finding aligns with the assertions put forth by Martin and Delgado (2011), who contend that emotional regulation exerts a significant influence on decision-making processes. They contend that individuals who demonstrate proficiency in emotional regulation tend to employ goal-oriented decision-making. Modecki et al. (2017) further substantiate this claim by demonstrating that an individual's capacity to regulate emotions can influence the decision-making model.

The distribution of categorization results in this study demonstrated that 59% of adolescents exhibited moderate emotional regulation abilities, indicating their capacity to demonstrate skills in emotional regulation, though in certain situations, the ability to regulate emotions requires further refinement. Conversely, 45% of participants exhibited low procrastination behavior. This suggests that the adolescents in the study did not exhibit significant academic procrastination behavior. Furthermore, 40% of the participants demonstrated a high level of father involvement, indicating that they perceive their fathers to be actively involved in their lives. This finding indicates that increased father involvement is associated with reduced academic procrastination behavior. Additionally, 57% of the participants exhibited a high dependent or dependent decision-making model, suggesting that their behaviors are influenced by their parents or guardians. Furthermore, 70% of the participants indicated a history of self-harm behavior. The findings of this study suggest a significant association between emotional regulation and the development of academic procrastination in adolescents. The mediation of emotional regulation appears to play a crucial role in the relationship between NSSI behavior, father involvement, and dependent decision-making, which collectively influences the development of academic procrastination in this demographic.

CONCLUSIONS

The results of the analysis and discussion described above indicate that emotional regulation can act as a mediator of the influence of NSSI on academic procrastination, the influence of father involvement on academic procrastination, and the influence of dependent decision making on academic procrastination. However, when viewed from the perspective of direct influence, the only factors that have a significant direct influence are NSSI on academic procrastination and emotional regulation on procrastination. Conversely, the influence of father involvement and dependent decision making on academic procrastination is not direct, and mediation through emotional regulation is necessary to understand these relationships. Suggestions for further researchers can focus on other factors affecting academic procrastination in adolescents such as personality factors, fear and anxiety, poor time management skills or aspects of internal and external motivation.

ACKNOWLEDGMENTS

We would like to express our sincere gratitude to all parties who have contributed to this paper, particularly the participants who willingly participated in this research. Additionally, we express our gratitude to the Universitas Buana Perjuangan Karawang for the funding provided to the writers and continuous support to the lectures, which enabled the publication of this research in this journal

AUTHOR CONTRIBUTION STATEMENT

The authors in this research have role and contribution according to each expertise. First author conceptualizes overall research, collecting data, data analysis and all process of manuscript writing. Second and third author contributed to deepen the theory, phenomena, data collecting and discussion. Fourth and fifth author contributed to methodology and data analysis.

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